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EXAMINER

MACARTHUR, SYLVIA

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1716

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/644,054
Filing Date: August 20, 2003
Appellant(s): STIRNIMAN ET AL.

Anthony C. Murabito
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed December 6, 2010 appealing from the Office action mailed July 7, 2010.

Art Unit: 1716

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1-8, 13-23, 28, and 29 are pending in this present application.

Claims 16-23 have been withdrawn.

Claims 1-8, 13-15, 28, and 29 stand under final rejection and are the subjects of this appeal.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

Art Unit: 1716

(6) Grounds of Rejection to be Reviewed on Appeal

This does not constitute a new grounds of rejection as it is placed in this ground of rejection statement purely for consistency for the Board.

A. Claim 1 stands rejected under 35 U.S.C. 102(b) as being anticipated by Branderhorst et al (US 5,196,064).

B. Claim 1 stands rejected under 35 U.S.C. 103 as being unpatentable over Liehr et al (US 6,487,986) in view of Branderhorst et al (US 5,196,064) or Segerstrom et al (EP 0318071).

C. Claims 2-8, 13-15, 28, and 29 stand rejected under 35 U.S.C. 103 as being unpatentable over Liehr et al (US 6,487,986) in view of Branderhorst et al (US 5,196,064).

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

Patent Number	Inventor(s) Name	Publication Date
US 5,196,064	Branderhorst et al	03-1993
US 6,487,986	Liehr et al	12-2002
EP 0318071	Segerstrom et al	05-1989

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

A. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by Branderhorst et al (US 5,196,064).

Art Unit: 1716

The prior art of Branderhorst et al teaches a replaceable fluid dispensing nozzle (note that the nozzle is inherently capable of supplying a vapor as the type of fluid supplied does not structurally limit the apparatus). The apparatus of Branderhorst et al features an elongated source (chamber/ bridge plate 170). The chamber communicates with a plurality of primary plugs (nozzle assemblies, 110, 150) and threaded holes (see nuts 123, 124) which primary plugs are screwed into, see Figures, especially Figures 1 and 3, that are provided below and illustrate that each of the plugs comprises a drilled hole (128) and two openings see inlet and outlets illustrated in Fig. 3. See the figures below, which illustrate that the nuts 123, 124 have threaded holes (key ways/slots, see col. 5 lines 1-10 to complement the plugs and allow height adjustment. See also col. 2 lines 33-50, col. 3 lines 9-50, and col. 4 lines 43- col. 5 lines 65. Branderhorst further teaches a the claimed structure of the plugs with a drilled hole 128 and two openings (inlet and outlet). Thus, the prior art of Branderhorst et al is inherently capable of providing a lubricant vapor source.

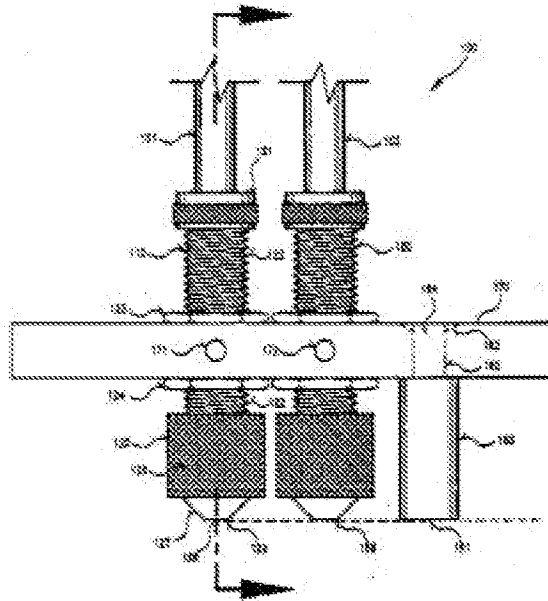


Fig. 1 of Branderhorst et al

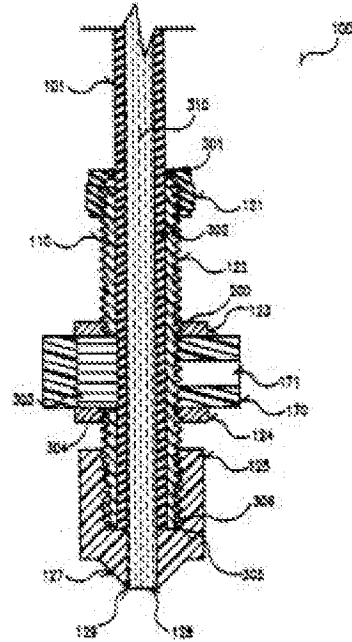


Fig. 3 of Branderhorst et al

B. Claim 1 are rejected under 35 U.S.C. 103(a) as obvious over Liehr et al (US 6,487,986) in view of Branderhorst et al (US 5,196,064) or Segerstrom et al (EP 0318071).

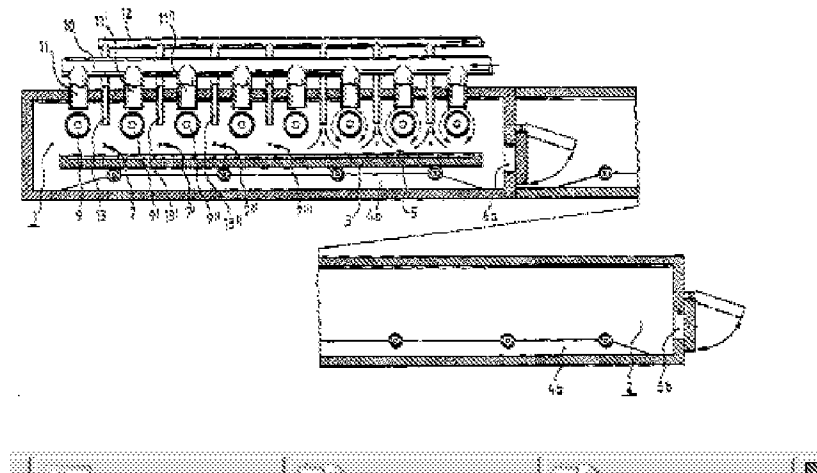
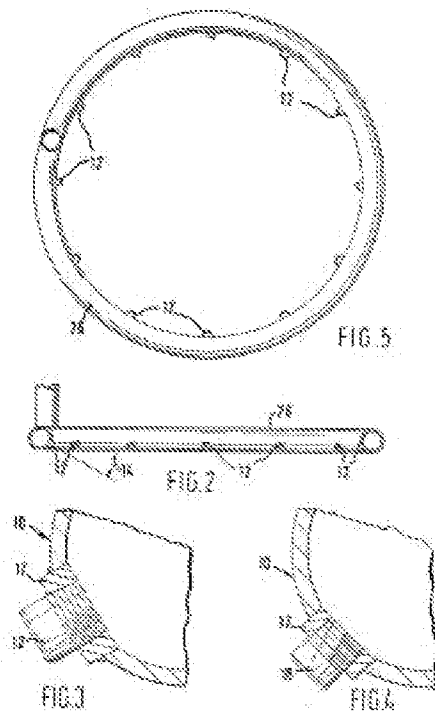


Fig. 1 of Liehr et al

Art Unit: 1716

The apparatus of Liehr et al teaches an elongated vapor source (chamber 1). The chamber is provided with sources (9,9') and fluid inlets and outlets (10,10' 11,11' 12,12', 13,13') Liehr et al fails to teach an apparatus wherein said lubricant vapor source comprises a structure where at least a plurality of threaded holes into which said plugs are screwed therein. Recall the teachings of the prior art of Branderhorst et al. The motivation to combine the teachings of Branderhorst et al with the apparatus of Liehr et al is that the nozzles of Branderhorst et al are replaceable and can be removed and reused making them advantageous for maintenance. Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to use the nozzle of Branderhorst et al as a substitute for the fluid inlet/outlet tubes or sources of Liehr et al.

Likewise the apparatus of Liehr et al could have been combined with the prior art of Segerstrom et al which teaches threaded plugs and their ability to provide adjustable spray configurations. Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to use the nozzle of Segerstrom et al et al in the apparatus of Liehr et al.



Illustrations of Segertrom et al (EP 0318071)

C. Claims 2-8, 13-15, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liehr et al (US 6,487,986) in view of Branderhorst et al (US 5,196,064).

The prior art of Liehr et al teaches an elongated vapor source (chamber 1) with plugs (manifold 10/nozzles 11,11' 11'', ...) that have two openings (an inlet and an outlet) that extend the length of the interior of each plug. The source is closed and provided with heat via glow wires (7, 7', 7'').

Liehr et al fails to teach an apparatus wherein said lubricant vapor source comprises at least a plurality of threaded holes into which said plugs are screwed therein.

Recall the teachings of the prior art of Branderhorst et al as discussed above. The motivation to modify the apparatus of Liehr et al with the teachings of Branderhorst et al is that

Art Unit: 1716

the nozzles of Branderhorst et al are replaceable and can be removed and reused making them advantageous for maintenance. Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to use the nozzle of Branderhorst et al in the apparatus of Liehr et al.

Regarding claim 2: The apparatus according to claim 1, wherein said chamber (a) is adapted for maintaining said interior space at a pressure below atmospheric pressure, see Figures 1 and 2 and the slit airlocks of Liehr et al et al.

Regarding claims 3, 13, and 14: The apparatus according to claim 1, wherein said substrate loader/unloader (b) is adapted for providing cooling/condensation (cooled carrier 3 of Liehr et al) of said lubricant vapor for preventing escape of said lubricant vapor from said interior space of said chamber when the substrate is cooled the vapor disposed thereabout is cooled as well.

Regarding claims 4 and 5: Though Liehr et al does teach a disk shaped substrate 5, the examiner recognizes that the inclusion of material or an article worked upon by a structure being claimed does not impart patentability to the claims. In re Young, 75 F. 2d 966, 25 USPQ 69 (CCPA 1935) (as restated in In re Otto, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). Furthermore, note that the apparatus is what it is and not what it does; the type of substrate used does not structurally limit the apparatus and is not given patentable weight.

Regarding claim 6: Recall the chamber of Liehr et al is closed via airlocks 6a, 6b see Figures and is heated via glow wires see col. 3 lines 1-28.

Regarding claims 7 and 8: See Liehr et al teaches nozzles 10-13 of which some are primary and the other are secondary plugs named and delineated at the inventor's discretion. The plugs are provided over the length of the source see Figures and abstract.

Art Unit: 1716

Regarding claim 15: The plugs of Liehr et al et al are formed in a linear and rectangular array, see Figures 1 and 2.

Regarding claims 28 and 29: The plugs having a pattern wherein the plugs at the outer edges have a smaller diameter than the plugs adjacent to the middle of the vapor source, the arrangement of the plugs and are interpreted as a matter of optimization without a showing of criticality of this design choice, i.e. arrangement, shape, or rearrangement of the plugs. These design choices also known as process variables are optimized to provide the optimal desired treatment results along the substrate. The courts have held that without a showing of criticality of the shape, arrangement of a structure, the optimization of such is a prima facie case of obviousness; see *In re Japsike*, *In re Dailey et al*.

(10) Response to Argument

A. Appellant argues on page 11 (Issue#1) that the prior art of Branderhorst et al fails to specify the use of a lubricant source. Note claim 1 recites an elongated lubricant vapor source. It is not specified in the prior art that the apparatus of Branderhorst et al is intended for a lubricant vapor source, but the apparatus of Branderhorst et al is to nozzle assembly (interpreted as a structure used to source a plethora of fluids to include lubricant vapor). In summary, the term "lubricant vapor source" is interpreted as a matter of an intended use and Branderhorst et al is inherently capable of providing such fluids as vapor lubricants.

B. Appellant argues on page 13, that the bores of Branderhorst are smooth and are not threaded into which a plurality of primary plugs are screwed therein. See Fig. 3 wherein

Art Unit: 1716

keyways/slots are illustrated as threads and recited in col. 2 lines 33-50, col. 3 lines 9-50, and col.4 lines 43- col. 5 lines 65.

C. Appellant further argues that the prior art of Branderhorst adjusts the height of the bulkhead by screwing the nuts and preventing rotation of the bulkhead. Appellant argues that the bulkhead is screwed with nuts that strengthen the argument for threaded holds. The examiner passages in col. 2 lines 33-50, col. 3 lines 9-50, and col.4 lines 43- col. 5 lines 65 that also teach threaded holes.

D. Appellant argues on page 14 that the prior art of Liehr and Segerstrom fails to teach or suggest the lubricant vapor source comprises a plurality of threaded holes into which the plurality of primary plugs are screwed therein. Note Liehr et al was introduced to teach a vapor lubricant source while prior art of Branderhorst et al and Segerstrom were introduced to suggest the teachings of threaded holes into which the plurality of primary plugs are screwed therein.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Sylvia MacArthur

/Sylvia R. MacArthur/
Primary Examiner AU 1716

Conferees:

/Christine Tierney/

Supervisory Patent Examiner, Art Unit 1700

Application/Control Number: 10/644,054

Page 11

Art Unit: 1716

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Supervisory Patent Examiner, Art Unit 1716